

REMARKS

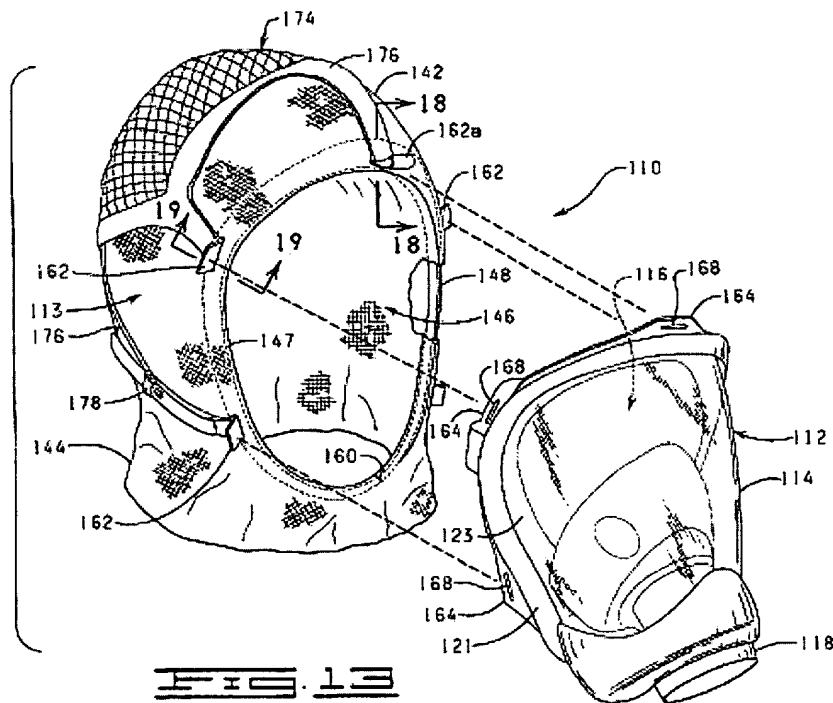
Claims 1-7 are pending in the application.

I. TRAVERSE OF THE ANTICIPATION REJECTION OF CLAIMS 1-4 AND 6-7

The examiner rejected claims 1-4 and 6-7 for anticipation in view of Tischer *et al.* (USP 6,328,031). Claims 1-4 and 6-7 recite a respirator assembly that includes a combination of features that are not disclosed in Tischer *et al.* thus rendering the claims novel and patentable.

The examiner rejected claims 1-4 and 6-7 for anticipation by the embodiment in Figures 12 and 13 of Tischer *et al.* However the examiner's rejection is based upon a misinterpretation of claim 1, Tischer *et al.*, or both.

Application claim 1 is the sole independent claim of the above identified application and forms the basis of the Applicant's anticipation rejection traverse. Figure 13 of Tischer *et al.* is reproduced below.



One essential feature of the respirator assembly of claim 1 is "a first sub-assembly adapted to be worn on the head". This claim 1 feature appears to correspond to hood 113 in Tischer *et al.* Figure 13. A second essential feature of the respirator assembly of claim 1 is "a second sub-

assembly” comprising a face piece, the second sub-assembly being separable from the first sub-assembly but selectively co-operable therewith. The second sub-assembly feature of claim 1 appears to correspond to face mask 112 in Tischer *et al* Figure 13.

The claimed respirator includes at least one significant feature – the location of the face seal – that is not disclosed in Tischer *et al*. In the claim 1 device, the first sub-assembly (corresponding to hood 113 of Tischer *et al*.) includes a seal adapted to seal around the periphery of the user’s face when worn. Tischer *et al*. in contrast includes a seal around face mask 112. Indeed, the examiner admits that the only seal that seals around the periphery of the user’s face in Tischer *et al*. Figures 12 and 13 is seal 123 which is integral to the Tischer *et al*. face mask 112 and which is **not** part of hood 113. The location of the Tischer *et al*. seal 123 is perfectly clear both from the view of Figure 13 above showing the two sub-assemblies separated, and from the description of seal 123 at Tischer *et al*. column 6, lines 26-37 which describes the seal member 123 attached to the rim 121 of the face mask 112. Thus, claims 1-4 and 6-7 are novel and patentable because Tischer *et al*. does not disclose a first hood sub-assembly that includes a seal.

Claims 1-4 and 6-7 are also independently novel and non-obvious over Tischer *et al*. because the positioning of the seal in the first sub-assembly of the present invention is highly significant and unexpected. As explained on page 1 of the application, it is recognised that wearing a conventional respirator, which encompasses the whole head or at least the face of the user to isolate the nose, mouth and eyes from the external environment, imposes a considerable physiological burden on the user and severely limits the duration for which the respirator can be worn without reducing the user’s ability to perform his mission effectively. It is therefore desirable to match the protection to the hazard so that personnel are not required to wear full respirators for extended periods of time when standing by for action or when there may be a threat of a hazard but no actual hazard encountered. On the other hand, donning a conventional respirator, and in particular ensuring that it is adequately sealed against the head to exclude the external environment, can be quite time-consuming, and it may be too late to attempt to don when the hazard is actually encountered. In the case of military combat aircrew who may require nuclear, biological or chemical (NBC) protection, for example, it is quite impractical for a conventional respirator to be donned in flight, meaning in effect that a decision must be made at the commencement of a mission between wearing full protection for the duration of the

mission – with the consequent and possibly unnecessary physiological burden which that implies – or no protection.

With the foregoing in mind, prior art respirator assemblies have been proposed which can be worn in a partially disassembled, open face condition to permit free breathing of ambient air, and which are completed with a face piece supplied from a suitable source of breathing gas when the need arises. Tischer *et al* can be regarded as an example of such prior art but this prior art has certain operational drawbacks not present in the claimed invention. That is to say, in Tischer *et al.* seal 123 which is carried by the facemask 112 is vital to the safety of the user and it is essential that it is fitted properly to his face to ensure isolation of the breathing chamber 116 from the external environment and conservation of the breathing gas supply. This can only occur when the face mask 112 is added to the hood 113 and in practice it may not be possible to ensure an adequate fit of the seal to the face under all likely operational conditions and particularly when the face mask is donned in haste, which is likely to apply under emergency and stressful conditions.

In use of the present invention, however, where the seal is not as part of the second sub-assembly as in Tischer *et al* but rather it is part of the first sub-assembly, the first sub-assembly can be donned at the outset and the necessary time taken to ensure that the seal is adequately fitted against the user's face before there is any risk of exposure to the hazardous environment for which the respirator is intended. It can be worn in this condition to permit free breathing of ambient air until the user is subject to the risk of attack or otherwise required to enter the intended hazardous environment, at which time the second sub-assembly can be rapidly added without any further adjustment of the vital face seal. An assembly according to the invention may therefore achieve a higher level of safety for the user than that disclosed by Tischer *et al.* Thus, claims 1-4 and 6-7 are both novel and not obvious over Tischer *et al.*

II. TRAVERSE OF THE OBVIOUSNESS REJECTION OF CLAIM 5

The examiner rejected claim 5 for being obvious over Tischer *et al.* Claim 5 is not obvious for at least the same reasons identified in Section I above.

CONCLUSION

Claims 1-7 are pending in the application and are believed to be patentable for at least the reasons identified above. Favorable consideration and allowance of all pending application claims is courteously solicited.

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